

Geodatabase LIFE STRADE: Spatial Analysis of Wildlife-Vehicle Collision Data

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During the LIFE STRADE project a geodatabase was implemented through an open source GIS software (Q-Gis), with geographical coordinates (WGS 84 UTM 33) in which the following data are stored: reports coming from collision claims, data from the Sanitary Authority, data from scientific research initiatives and from the monitoring activities in the LIFE STRADE project, observation of citizens.

This spatial data originates from a general database where all the information is collected, regardless of the level of reliability given, and includes information like: the species involved, day and hour, location classified in four degrees of accuracy (1, 2, 3 and 4). The geodatabase derived from the general database contains only locations with accuracy classes 1 or 2. To date, this geodatabase includes 4,200 records from five Province of LIFE STRADE Project.

We have started this archive to produce two kinds of maps: real risk maps and potential risk maps.

The real risk maps are rasterized inside a buffer, which is created around the main roads. In these areas the number of accidents per Km is counted, allowing us to identify the road sections with the highest concentrations of accidents. The fields of application of these maps are: detection of the roads for monitoring, individuation of sites for installation of prevention systems, and live information for citizen that use the MyMaps feature of Google Maps in the car.

The potential risk maps were obtained by spatial analysis of ecogeographical variables (EGV); the selection criteria of these EGV were based on the ecology of the main species involved (Roe deer and Wild boar). These maps allow the identification of the areas where the mitigation measures can be implemented. implemented optimized.